TEST INSTRUMENTS

MT-8100 Butt Set

Features:

- High impedance monitor
- Line voltage test
- Line Continuity test
- Polarity indication
- Two-way hands-free speakerphone
- Tone and pause operation
- Speed dialing
- Last number redial
- PBX pause button
- Mute switch
- Electronic adjustable Volume
- Auto power off
- Low battery indication
- Audible ring
- Extra large steel locking belt clip
- Angled bed of nails and RJ11 plug

Waterproof

Dustproof

Drop Protection

Rugged

Exterior

Voltage Test

IEC/EN 60529 IP54 — Mark for products are complied with IEC/EN 60529 IP54 Dustproof & Waterproof tests

Electrical	
Loop limit	2 KΩ maximum at 48 VDC (nominal 20 mA minimum loop current)
DC resistance	
Talk mode	300Ω typical
Monitor impedance	39kΩ nominal at 1 kHz
Rotary dial output	
Pulsing rate	10pps+0.8pps
Percent break	61%±2%
Interdigit interval	1000 ms typical
Leakage during Break	>50 kΩ
DTMF output	
Tone frequency error	±1.2% maximum
Tone level	-8±2dBm combined (typical)
High versus low tone difference	4 dB maximum
Memory dialing	
Memory capacity	13 memories including M1, last number redialing
Digit capacity	16 digits per memory
PBX pause duration	4 seconds
Line voltage test	5 Phase AC/DC voltage indication (under24V,24~100V,101~150V, 151~200V,more than 200V)
Monitor amplifier	9V transistor; provides 25 hours continuous use, typical
Power source	Continuous use, typical
Automatic power shut off(Monitor type)	After 5 min. of no audio signal
Speaker phone levels	Electronically adjustable
Power source	Battery (9V) 6F22 (Not included)
Physical	
Measurement	230 ×82 × 89mm (9-1/16" × 3-15/64" × 3-1/2")
Weight	635g typical
Water resistance	Dust protection & Waterproof tested to an IEC/EN 60529 IP54 rating
Cord sets	Angled bed of nails and RJ11 plug
Environmental	
Temperature	Operating: 0 to 50°C Storage:-10 to 60°C
Altitude	To 10,000 feet (3,000M) max
Relative humidity	5 To 95%

Individual packing: Color box

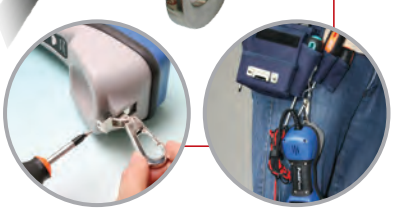
Line Voltage test

Line Continuity Test

Polarity LED Indicator

Electronic Adjustable Volume

Angled Bed of Nails



Replaceable & Durable Hanger

MT-8001 Butt Set

Rests easily on shoulder

Polarity LED indications

CE RoHS COMPLIANT AP OFF

Features:

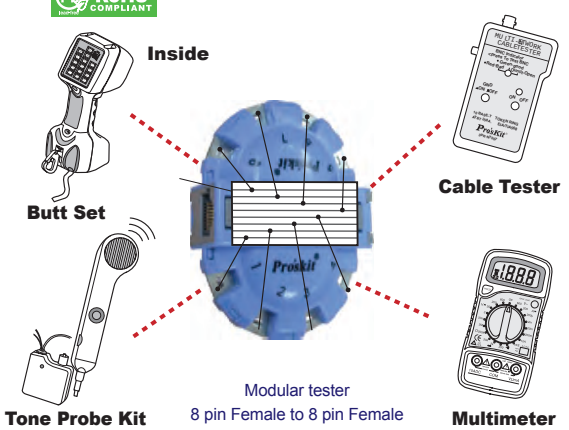
- Recognized as the new industry standard, the MT-8001 butt set provides superior quality at an affordable price.
- With its high impedance monitor for data safe operation, technicians can clip onto a line in Monitor mode without disrupting existing traffic.
- Prokit's unsurpassed protection standards and durability assure the butt set will keep working even in the toughest environments.
- New weatherproofing provides enhanced resistance to severe weather conditions.

Electrical	
Loop limit	2 kΩ maximum at 48 VDC (nominal 20 mA minimum loop current)
DC resistance	
Talk mode	300Ω typical
Monitor impedance	39kΩ nominal at 1 kHz
Rotary dial output	
Pulsing rate	10pps+0.8pps
Percent break	61%±2%
Interdigit interval	1000 ms typical
Leakage during break	>50 kΩ
DTMF output	
Tone frequency error	±1.2% maximum
Tone level	-8±2dBm combined(typical)
High versus low tone difference	4 dB maximum
Memory dialing	
Memory capacity	12 memories plus last number redialing
Digit capacity	16 digits per memory
PBX pause duration	4 seconds
Monitor amplifier power source	9V transistor; provides 25 hours continuous use, typical
Speaker levels	Low, medium, high
Automatic power shut off	After 5 min. of no audio signal
Speaker phone levels	Low, medium high
Power source	Shared line and battery power
Physical	
Length	10-1/4 inches(26.0 cm)
Width	2-3/4 inches(7.0 cm)
Height	3-1/2 inches(8.90 cm)
Weight	560 g typical
Environmental	
Temperature	Operating:0 to 50˚C Storage:-40 to 66˚C
Altitude relative humidity	To 10,000 feet 5 to 95%

Individual packing: Color box

MT-8091 In-Line Modular Adapters (4/6/8 Pin 3 In 1)

RoHS COMPLIANT



Features:

- The MT-8091, In-line Modular Adapter allows in-line testing for any plug/jack combination. It includes two 4-pair jacks plus a modular cord terminated with 4-pair "universal" plug for accessing any standard 6- or 8-position jack.
- Individual conductors are broken out by pin number and correspond to eight separate test pads.
- Test equipment can be securely attached to the test pads using alligator clips.
- For quick reference in the field, USOC, T568A, and T568B wiring charts are printed right onto the body.

	6 pin Female to 8 pin Male		8 pin to 8 pin 205mm
			8 pin to 6 pin 205mm
	4 pin Female to 8 pin Male		8 pin to 4 pin 205mm

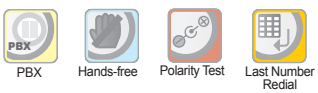
Individual packing: Blister card

MT-8006B Data Diver

LCD display, Talk/Monitor, Polarity indication, Power saving, Hands-Free

Features:

- LCD display for dialing number, Caller ID, Clock and other information
- Smart power saving enables battery life up to 6 months
- 12 phone number memory for speed dialing
- 16 dialing number memories
- Tone (DTMF) and pulse operation
- Up to 32 digits phone number memory for speed dialing key
- Pre-dialing and last number redial function
- PBX pause key, insert a PBX pause in stored numbers
- Telephone line polarity indicators
- Low battery indication
- Backlight function
- RJ-11 port for easy test leads change
- Ringer and voltage LED indication
- Angled bed of nails and RJ-11 plug



Electrical	
Loop limit	**2 KΩ maximum at 48 Vdc (nominal 20 mA minimum loop current)**
DC resistance	
Talk Mode Monitor impedance	**300Ω typical** **>39kΩ nominal at 1 KHz**
Rotary dial output	
Pulsing rate Percent break Inter digit interval Leakage during Break	**10pps+0.8pps** **60/40%±2%** **1000 ms typical** **>130 KΩ**
DTMF output	
Tone frequency error Tone level High versus low tone Difference	**±1.5% maximum** **-8±2dBm combined (typical)** **4 dB maximum**
Memory dialing	
Memory capacity Digit capacity PBX pause duration Power source	**12 memories** **16 digits per memory** **1~3.6 seconds** **4pcs 1.5V AAA batteries (not included)**
PHYSICAL(Hook included)	
Measurement Weight	**218.5 ×69.5 × 49mm (8.6" × 2.7" × 1.9")** **208g typical**

Individual packing: Double blister

Telephone line testing

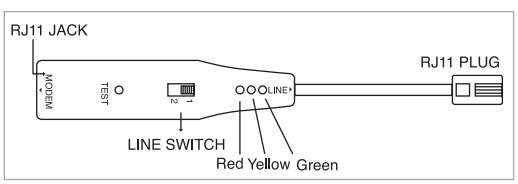
High impedance monitor

Accessories: Angled Bed of Nail and headset

NT-6006 Dual Telephone Line Tester

Features:
This tool is for testing the condition of dual telephone line jacks. Multi-color LED indicator light alerts to okay line, reversed line, AC Voltage present and dead line.Fits in shirt pocket.

- Dual telephone line tester that troubleshoots common problem conditions with standard single or dual-line telephone hook-ups.
- Compact unit easily plugs into any single or dual-line telephone jack.
- Tests for three wiring conditions: correct, reversed and AC voltage presence.



Individual packing: Blister card

MT-7068 All-in-One Toner & Probe Kit

RoHS COMPLIANT · CONT. LED

VDV Tester (Voice/Data/Video)

Features:
- Validate and troubleshoot wiring on RJ11/RJ45 cables, USB, F, BNC and RCA connectors.
- Detects telephone and Ethernet service, indicates polarity and active line numbers on voice circuits, and active pair number on Ethernet circuits
- Ideal for all maintenance fields of telecommunication, networking, datacom, Audio/Video, Cable TV and all weather cabling, etc...
- Locates cables quickly and easily
- Overcome noise and save time
- Tone on live networks safely and effectively
- Verify conductor continuity with cable map

MT-7068-T Transmitter Specifications	
Tone frequency	1kHz
Tone mode	ONE/TWO-note tone
Compatible connectors	RJ-45/RJ-11/USB/F/BNC/ RCA/Alligator Clips
Continuity test	<300Ω
Talk battery voltage	6V into 600Ω
Function selection	5-position rotary switch
Cable map indication	8 LED indicators
Voltage protection	100V
Low battery display	6.5V
Battery type	9V (6F22)
Dimension (LxWxD)	140x70x30mm

MT-7068-R Receiver Specifications	
Frequency	1kHz
Compatible connectors	RJ-45/RJ-11/USB/F/BNC/RCA
Ear jack	1
Signal status indication	8 LED indicators
Cable map indication	8 LED indicators
Low battery display	6.5V
Battery type	9V (6F22)
Dimension (LxWxD)	250x52x33mm

Individual packing: Color box

Copper cabling detecting, including shielded (STP) and UTP cable

10 Base-T or 10/100 Base-T datacom networks

Locates and isolates cables quickly and easily

Accessories :
1 zipper bag,
2 RJ-45 cables,
2 BNC connectors,
2 RCA connectors.

3PK-NT023N Tone and Probe Kit

Toner Generator **Probe Amplifier**

Packaged in a soft nylon carrying case.

RoHS COMPLIANT · CONT. LED

Use it on de-energized AC wire, telephone/twisted pair wire, all voice and data category rated cable, speaker wire, virtually any cable or wire!

Features:
- Fast, accurate wire identification
- Rugged industrial design
- Sends tone to identify wires
- Three selectable tone outputs
- Two-line polarity indication
- Continuity test
- Adjustable volume control
- Visual signal strength indication
- Powerful speaker for noisy environments
- Recessed telephone test set connectors
- Battery: 9V(6F22)

Individual packing: Blister card

MT-7059 LCD Multifunction Cable Tester

LCD display, Wire tracing, LAN cable mapping, 9 different tone cable status indication

MT-7059 Transmitter specifications	
Indicator	LCD 53X25mm,with back light
Tone frequency	225kHz
Max. distance of transmission	2km
Max. distance of cable map	300m
Max. working current	≦70mA
Tone mode	9 Tone adjustable
Compatible connectors	RJ45(8 pin)、RJ11(6 pin)、BNC、USB、IEEE 1394
Continuity test	LCD (SHORT)
Max. signal voltage	1.5Vp-p
Function selection	3 Push button & 1 Power switch
Function and faults LCD display	LCD display (Wiremap；Tone；Short；Noadapter；UTP；STP；Low battery)
Cable map indication	LCD (#1~#8)
Shielded indication	LCD (#9)
Voltage protection	AC 60V / DC 42V
Low battery display	LCD (6.5V)
Battery type	DC 9.0V(NEDA 1604/ 6F22 DC9V ×1pcs)
Dimension (LxWxD)	185X80X32mm

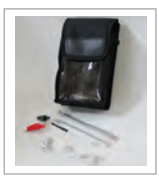
MT-7059 Receiver specifications	
Frequency	225kHz
The Max. working current	≦70mA
Ear jack	1
LED illumination	2 LEDs
Battery type	DC 9.0V(NEDA 1604/ 6F22 DC9V ×1)
Dimension (LxWxD)	218X46X29mm

MT-7059 Remote unit specifications	
Compatible connectors	RJ-45(8 pin)、RJ-11(6 pin)、BNC、USB、IEEE 1394
Dimension (LxWxD)	107X30X24mm

Features:
- Display test result on large LCD for easy reading and cable status identification
- The wire can be tracked directly in connection with Ethernet service, router, and PC terminal
- Validate and troubleshoot wiring on RJ11/RJ45 cables, Coaxial cable, USB cable, IEEE 1394 cable
- Test cable status for continuity, shorts, opens,miswired, crossover
- 9 different tones selection for convenience use under different environment condition
- All installation and maintenance fields of telecommunication, networking, cable TV and more

Verify LAN cable condition

Wire Tracing


Accessories: earphone, RJ-45 cable, pouch bag

MT-7025 Network Tone/Probe Kit

Wire tracing, LAN cable mapping, Cable status indication

MT-7025 Transmitter specifications	
Tone frequency	1kHz
Max. distance of transmission	2km
Max. distance of cable map	300m
Max. working current	≦45mA
Tone mode	ONE/TWO-note tone
Compatible connectors	RJ45(8 pin)、RJ11(6P/2C)、Alligator Clips
Continuity test	Yes
Max. signal voltage	8Vp-p
Function selection	3 Position mode switch
Cable map indication	8 LEDs
Shielded indication	1 LED
Phone line polarity indication	Yes
Voltage protection	AC 14V or DC 10V
Low battery display	6.0V
Battery type	DC 9.0V(NEDA 1604/ 6F22 DC9V ×1pcs)
Dimension (LxWxD)	126x49x34mm

MT-7025 Receiver specifications	
Frequency	1kHz
The Max. working current	≦90mA
Compatible connectors	RJ45(8 pin)/RJ11(6 pin)
Ear jack	1
Signal status indication	1 LED & Buzzer
Cable map indication	8 LEDs
Shielded indication	1 LED
LED illumination	1 LED
Battery type	DC 9.0V (NEDA 1604/ 6F22 DC9V ×1pcs)
Dimension (LxWxD)	176x42x27mm

Features:
- Local up to 2KM long wire/cable even in a complex PC network or telephone system
- Quickly diagnostic LAN cable condition and identify cable status
- Scan for continuity, open, short as well as reversal and crossed wiring
- Comes with LED light and earphone support enable to work in dark and noisy environment
- All maintenance fields of telecommunication, networking, cable TV and more

Verify LAN cable condition

DC level testing function

Accessories: earphone, RJ-45 cable, pouch bag

MT-7058 Mini Lan Cable Tester

RJ45, RJ-11/RJ-12, BNC cable tester, Voltage detector

Features:
- Complies with CE safety standard
- Automatically detect good connections, opens, crossed wires & split pairs
- Test RJ45 TIA568A/B (AT&T) 258A), 10 Base-T, Token ring, RJ-11/RJ-12 USOC and coaxial BNC cable
- Pin to pin cable map indicator
- Voltage detection for user safety
- Main unit and remote allow one person operation
- Compact size and lightweight design for easy to carry around
- Circuit protection design for both units
- Low power consumption with auto power off function to preserve battery
- Long cable test more than 300 meters

Specifications	
Function	Ground or shielded test
	1~8 LED pin to pin indicator
	No Connection indicator
	Crossover indicator
	Straight cable indicator
	Cable short indicator
	BNC cable indicator
	Non-contact detector(AC60V~240V 60Hz)
	Low battery indicator
	Beeper indicator
Size	100×60×24.5 mm
Power	12V AE23 x 1pcs (Not included)
Accessory	Pouch bag x 1, BNC connector x 1

BNC cable test

RJ11 cable test

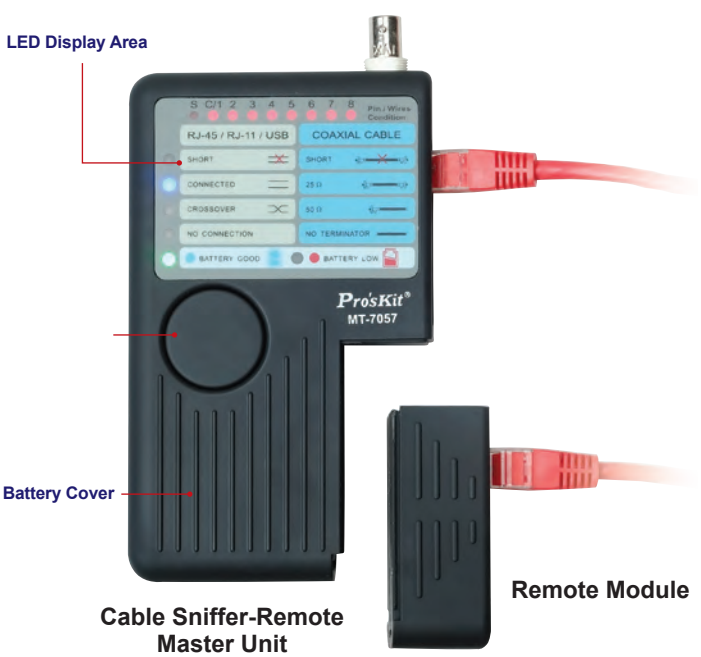
RJ45 cable test

Long cable test more than 300m

Non-contact voltage detection (AC60V~240V 60Hz)

Accessory

MT-7057 Cable Sniffer-Remote



Features:
- Simple one push-button operation.
- Power supplied by a 9V battery (Not included).
- Palm size design, easy to carry around.
- Detects open, short, miswired and cross-connected wire.
- Four types of connectors provided to test RJ-45, RJ-11, USB and BNC.
- Protect itself against damage from line voltage.

Individual packing: Color box

With RJ-45 connectors

With RJ-11 connectors

With USB connectors

BNC terminator included

3PK-NT015N Lan Cable Tester

Features:
- Open/short wiring test
- Connected wires display
- No wire or termination indication
- Wrong connection/Non-parallel connection
- Ethernet 10 base2 termination value detection
- Battery low indication
- Buzzer inside.
- BNC for testing 10 BASE2 terminator value.
- Isolation resistances 50K ohms test

Individual packing: Blister card

MT-7055 Enhanced Lan Cable Tester

Features:
- Instantly indicates cable type (LAN/TELECOM/COAX) and tests for faults.
- Remote unit display actual pin configuration, detects shorts miswires, breaks, reversed, enables testing of installed cables.
- Checks datacom/network, voice/telecom, crossover, shielded andcoax cables.
- Tone generator makes tracing cable with a net probe, simple and fast.
- A built-in line tester verifies phone line polarity and detects voltage before it threatens the safety of the tester.
- Battery low indicator prevents misreading results.
- Suitable for residential or commercial application.

Individual packing: Inner box & Color label shrink

MT-7056 Lan Cable Tester

Features:
- Scans for continuity, open, short as well as reversal and crossed wiring.
- Features with Auto or Manual scans for pin-out indicators.
- Built-in tone generator for cable tracing & identification.
- The remote terminator can be used to test the existing cable installations.
- Patch panel and wall plates can also be easily tested with the RJ45 adapter cable.
- RJ45 to BNC adapters allows for testing & tracing of BNC cables.
- Battery low indicator prevents misreading results.

Individual packing: Inner box & Color label shrink

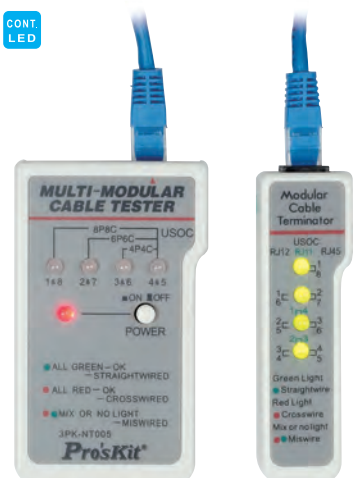
MT-7051N Multi-Modular Cable Tester

BNC connector included

Features:
- Tests RJ45 TIA568A/B (AT&T 258A), 10 Base-T, Token ring, RJ-11/ RJ-12 USOC and Coaxial BNC cable.
- Automatically check cable for continuity, short, open and crossed wire pairs.
- Coaxial cable port indentifies cable conditions including shorts, shield opens and center conductor breaks.
- Main unit and remote allow one person testing.
- Power source: DC 9V Battery (Not included)
- Dimension: 102x106x28 (mm)
- Cable not included

Individual packing: Blister card

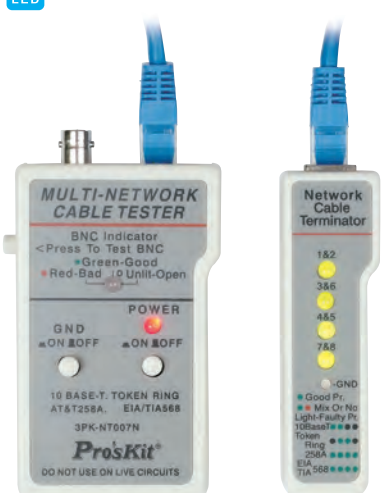
3PK-NT005N Multi-Modular Cable Tester



Features:
- Multi-modular cable tester is applied to quickly test by auto scanning most of modular cable, USOC 4 / USOC6 / USOC 8 terminating with RJ 45, RJ12, and RJ11 modular plug, wires continuity and miss-wiring. It can be also used for testing the cable is crossed pinning or straight through. Moreover, with the remote terminator, it can be further used in remote testing even the cable has been already installed.

Individual packing: Blister card

3PK-NT007N Multi-Network Cable Tester



Features:
- Multi-network cable tester is specified to quickly test by auto scanning the wires continuity, mis-wiring and polarization in your network cables, thin Ethernet (BNC)/10 Base-T (UTP/ STP)/356A/TIA-568A/TIA-568B/Token Ring. By using the attached remote terminator, you can easily test the cables before or after the cables installed. It also allows you to test the ground of shielded twisted pairs cables.

Individual packing: Blister card

With BNC terminal

For BNC, RJ-45 twisted pair test

Pro'sKit® Test Instruments

Maximum display range and accuracy for digital multimeters and digital clamp meters and environmental meters

rdg(reading)
The value on the digital display,readout.

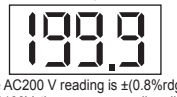
dgt(dilgit)
Indicates the least significant digit.
It represents the error used for processing fractions when converting from analog to digital.

Maximum display range

MT-1860/1820: the maximum display range is "5999".
MT-1232: the maximum display range is "3999".
MT-1280/1270/1210: the maximum display range is "1999".
For example of measuring resistance at MT-1232

Resistance	Display	
4000k	4.000M	The range is automatically switched so that the display unit is M or k
4000	4.000k	
40	40.00	The reading is display with three digits.

Accuracy
When ACV measument using the MT-1270, the maximum display value is 199.9V, minimum display value is 0.01V.



Example
The accuracy of the AC200 V reading is ±(0.8%rdg+5dgt).
when measuring AC100V, the accuracy reading display range is 100.9~99.15.
100V±(0.8%+5dpt)
=100+(0.80+0.05) ~100-(0.80+0.05)
=100.9~99.15

SI prefixes

Symbol	Prefixes	Decimal		Units frequently used
		Long Scale	Short Scale	
G	giga	1X1,000,000,00	$1X10^{9}$	GHz
M	mega	1X1,000,000	$1X10^{6}$	M , MHz
K	kilo	1X1,000	$1X10^{3}$	k , kV, kW,kHz
m	milli	1/1,000	$1X10^{-3}$	mV, mA, mW, mF, mH
μ	micro	1/1,000,000	$1X10^{-6}$	μV, μA, μW, μF, μH
n	nano	1/1,000,000,000	$1X10^{-9}$	nA, nF, nH
p	pico	1/1,000,000,000,000	$1X10^{-12}$	pF, pH

USB connector

- Backlight
- Maximum/Minimum value
- Maximum value hold
- Data hold
- Auto power off
- Low battery
- Zero-ohm adjuster
- Output terminal

- DC voltage
- AC voltage
- DC current
- AC current
- Resistance
- Frequency
- Capacitance
- Inductor check
- Temperature ˚C/˚F measurement
- Temperature ˚C measurement
- Duty cycle
- Relative reference
- Continuity buzzer
- Continuity check
- Diode test
- Transistor hEF test
- LED test
- Battery check

Most of Pro'sKit® test instruments are approved by CE EN61010-1 CATII/ CATIII test .

CAT. II Primary circuits or equipments connected to low voltage facilities, such as a standard wall outlet.

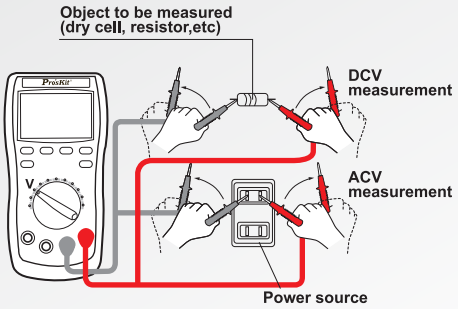
CAT. III Equipment used for measurement in building facilities, distribution boards, and circuit breakers.

- Hygrometer
- Thermometer
- Light meter
- Sound level meter

Test Instruments Technical Basics

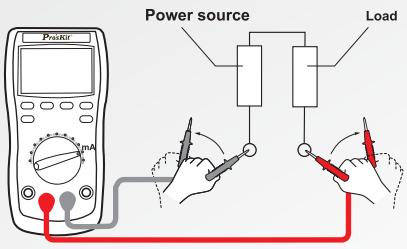
Measuring method of digital mulit-meter

Voltage, Resistance measurement



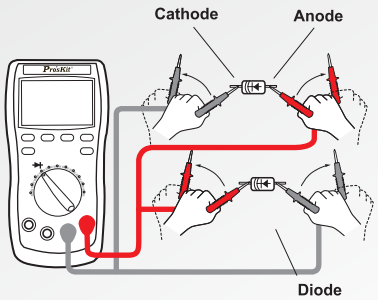
In making measurements, connect your DMM in parallel with an object to be measured. Do not apply signals exceeding the maximum rated input voltage.

Current Meaurement



In making measurements, connect your DMM in series with an object to be measured. Do not apply signals exceeding the maximum rated input current.

Diode Mesurement



When the black test lead is connected to the cathode side of the diode and the red test lead to the anode side, the forward voltage can be measured. On the contrary, if the black test lead is connected to the anode side of the diode and the red test lead to the cathode side, the reverse voltage can be measured and "OL" display appears.

Clamp Meter

What Are Clamp Meters?

Clamp meters are a very convenient testing instrument that permits current measurements on a live conductor without circuit interruption.
When making current measurements with the general multimeter, we have to cut wiring and connect the instrument to the circuit for testing as shown in Fig.1, however, we can measure current by simply clamping on a conductor as illustrated with clamp meter as shown in Fig.2.
Using a clamp meter is easy way that we can even measure a large current without shutting off the circuit being tested.

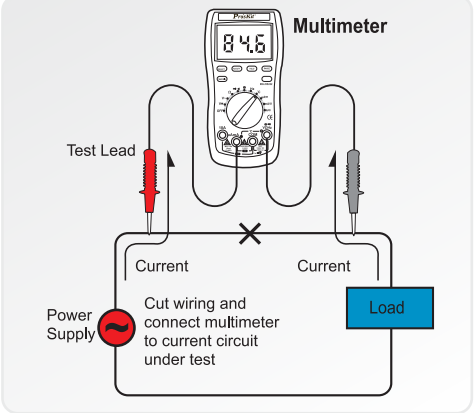


Fig.1 Using multimeter

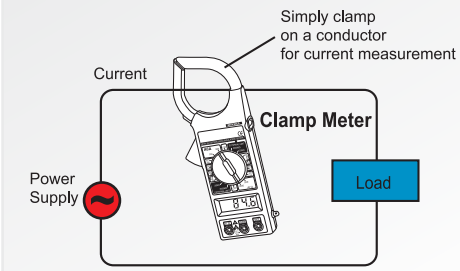


Fig.2 Using clamp meter

Clamp Meter Operation

Clamp meter permit to measure current by simply clamping on a conductor without shutting off the circuit being tested, even measure a large current. When making current measurements by a analogue multimeter or digital multimeter, we have to cut wiring and connect the instrument to the circuit for testing. Using a clamp meter, only one conductor is normally passed through the probe; if more than one conductor were to be passed through, the measurement will be very misleading. For measuring current using a clamp meter, clamp one conductor (wire) to be measured. If two wires (parallel lines) are clamped, current measurement cannot be made. Take a measurement at the center of the core of the clamped portion to minimize measuring errors. A line separator is conveniently used in measuring the consumption current of home electric appliances. There are line separators that can amplify measured current 10 times to allow measurement by amplifying current lower than 1A. When DC current (DCA) is measured using a clamp meter for DC current, the current is indicated in a negative value when the direction of the current is reversed. With this function, you could know what situation of your car battery, charge? Or discharge?

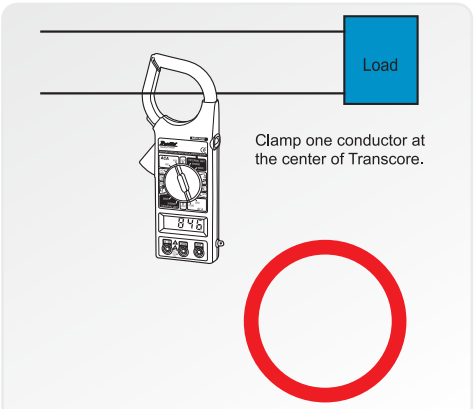


Fig.3 Correct measurement

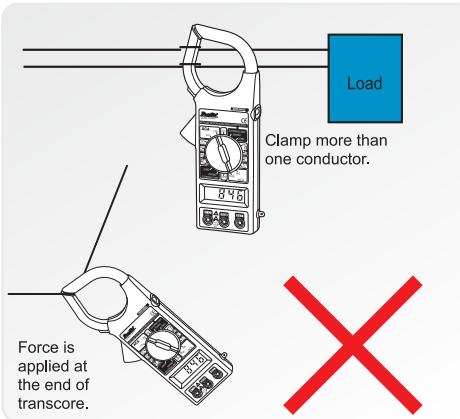


Fig.4 Wrong measurement

How to Measure DC Current

Clamp on to a conductor just the same way as with AC current measurement using an AC current clamp meter. In the case of DC clamp meters the reading is positive (+) when the current is flowing from the upside to the underside of the clamp meter.

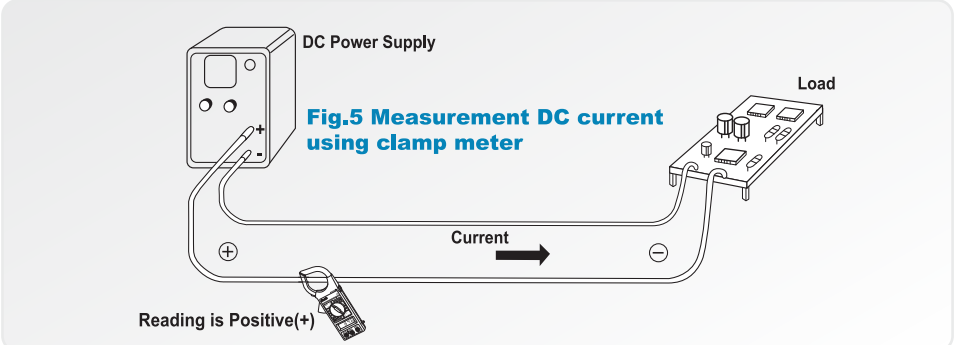


Fig.5 Measurement DC current using clamp meter

PC Link System

The Professional Multimeter Series comes with USB or RS232 connector to allow you easy connection to PC for monitor measuring data and recording.

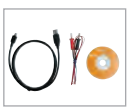
MT-1860 3-5/6 Dual Display DMM w/ USB Connector & Key Touching

USB connector to computer

Specification	
DCV	600m/6/60/600V ±(0.5%+4d), 1000V ±(1.0%+4d)
ACV	6/60/600V ±(0.8%+10d), 750V ±(1.0%+6d)
DCA	60m/600mA ±(1.0%+10d), 6/10A ±(1.2%+10d)
ACA	60m/600mA ± (1.5%+10d), 6/10A ±(2.5%+15d)
Resistance	600Ω ±(0.8%+5d), 6k/60k/600k/6MΩ ±(0.8%+4d), 60MΩ ±(1.2%+10d)
Frequency	10/100/1000/10k/100k/1M/20MHz ±(0.3%+2d)
Capacitance	40nF ±(5%+30d), 400n/4μ/40μF ±(3.5%+8d), 200μF±(5.0%+10d)
Temperature	-20~400˚C(0~750˚F) ±(1.0%+5d), 400~1000˚C(750~1832˚F) ±(1.5%+15d)
Power source	AAA(1.5V)x2pcs (Not Included)
Continuity with beeper	Y
Diode test	Y
Size	185×91×49 mm
Individual Packing	Color box

Features:
- 3 5/6 digits 5999 counts.
- 0.5% best accuracy.
- Auto range.
- USB connector for PC.
- Dual display with analog bar-graph.
- Touch keys.
- Extra functions: duty cycle, relative reference, backlight, Max/Min hold, data hold, auto power off, low battery indication.

mini USB connector


Accessories

MT-1820 3-5/6 Dual Display DMM w/ USB Connector

USB connector to computer

Specification	
DCV	600m/6/60/600V ±(0.5%+4d), 1000V ±(1.0%+6d)
ACV	6/60/600V ±(0.8%+10d), 750V ±(1.0%+10d)
DCA	600μ/6000μA ±(1.0%+10d), 60m/600mA ±(1.0%+10d), 6/10A ±(1.2%+10d)
ACA	600μ/6000μA ±(1.5%+10d), 60m/600mA ±(1.5%+10d), 6/10A ±(2.0%+15d)
Resistance	600Ω ±(0.8%+5d), 6k/60k/600k/6MΩ ±(0.8%+4d), 60MΩ ±(1.2%+10d)
Frequency	100/1000Hz ±(0.5%+4d), 10k/100kHz ±(0.5%+4d), 1M/20MHz ±(0.5%+4d)
Capacitance	40nF±(5%+30d), 400n/4μ/40μF±(3.5%+8d) 200μF±(5.0%+10d)
Temperature	-20~400˚C(0~750˚F) ±(1.0%+5d), 400~1000˚C(750~1832˚F) ±(1.5%+15d)
Continuity with buzzer	Y
Diode test	Y
Transistor test	Y
Power source	AAA(1.5V)×2pcs (Not included)
Size	192×95×48 mm
Individual Packing	Color box

Features:
- 3 5/6 digits 5999 counts.
- 0.5% best accuracy.
- Auto/Manual both range.
- USB connector for PC.
- Dual display with analog bargraph.
- Extra functions: duty cycle, relative reference, Max/Min hold, data hold, auto power off, low battery indication.

Transistor hFE test

mini USB connector

Accessories

Capacitance

Inductance

Resistance

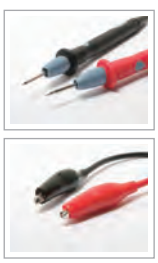
LCR Meter

ProsKit® LCR meter is a easy way to measure and analyze inductance (L), capacitance (C), and resistance (R) of passive components and materials accurately. Measured values can be easily read from large LCD display. MT-5210 LCR meter is also provided with a transistor test to check their functionality. Both continuity and diode test are part of the multiple functions of this LCR meter.

MT-5210 3 1/2 LCR Meter

Inductance/Capacitance/Resistance Measurement 3 in 1

Features:
- 3 1/2 digits 1999 counts.
- LCD display for low power consumption and clear readout even in bright ambient light conditions.
- Inductance measurement : 2mH to 20H.
- Capacitance measurement : 2nF to 1000μF.
- Resistance measurement : 200Ω to 20MΩ.
- Extra function : data hold, low battery indication.


Test probes, alligator clips

Specification	
Inductance	2m/20m/200mH ±(2.0%+5d), 2H ±(5.0%+5d), 20H ±(5.0%+15d)
Capacitance	2n/20n/200nF ±(1.0%+5d), 2μ/20μF ±(2.0%+5d), 200μF ±(5.0%+5d), 1000μF ±(5.0%+25d)
Resistance	200Ω±(0.8%+5d) , 2k/20k/200k/2MΩ±(0.8%+3d), 20MΩ ±(1.0%+15d)
Diode Test	Y
Transistor Test	Y
Continuity buzzer	Y (with light up)
Power source	NEDA1604/6F22 (9V) x 1pcs (Not included)
Size	189 x 97 x 35 mm
Individual packaging	Color box

MT-5110 3 1/2 Capacitance Meter

Capacitance Measurement 0.1pF~20,000μF.

Features:
- 3 1/2 digits 1999 counts.
- High measuring accuracy: ±0.5%.
- Measurements are possible even under a strong magnetic field.
- LCD display for low power consumption and clear readout even in bright ambient light conditions.
- Zero knob: Knob to zero when testing low capacitance.
- Extra function: backlight, low battery indication.

Capacitance test socket

Test probes, alligator clips

Specification	
Capacitance	200pF ±(0.5%+7d), 2n/20n/200n/2μ/20μ/200μF ±(0.5%+5d), 2,000μF ±(2.0%+5d), 20,000μF ±(3.0%+10d)
Zero adjustment	Manual (range:±20pF)
Over-input	Display shows "1"
Input overload protections	Y
Sampling time	0~5 second
EN61010-1	CE
Power source	NEDA1604/6F22 (9V) x 1pcs (Not included)
Size	182x90x46mm
Test Lead model no.	MT-9906

MT-1610 3 In 1 Network Digital Multimeter

3 in 1 for RJ-11 line test, RJ-45 cable test and DMM functions

CAT III 600V
CAT II 1000V

Specification			
DCV	200m/2/20/200V ±(0.8%+2d) , 1000V ±(1.2%+3d)		
ACV	200mV ±(1.2%+3d), 2/20/200V ±(0.8%+3d) , 700V ±(1.2%+5d)		
DCA	200μ/2m/20mA ±(0.8%+3d) , 200mA ±(1.5%+2d), 10A ±(2.0%+5d)		
ACA	200μ ±(2.0%+3d), 2m/20mA ±(1.0%+3d) , 200mA ±(1.8%+3d), 10A ±(3.0%+5d)		
Resistance	200Ω ±(0.8%+3d), 2k/20k/200k/2MΩ ±(0.8%+2d), 20MΩ ±(1.0%+2d) , 200MΩ ±(5.0%+10d)		
Special Function	RJ-45/RJ-11 Cable test for open circuits, shorts, mis-wires, reversals, and split pairs		
	Battery test 1.5/3/9V approx.		
Continuity with beeper	Y	Diode test	Y
Display hold	Y (only for multimeter)		
Power source	NEDA1604/6F22 (9V) x 1pcs(Not included)		
Size	178 x 85 x 48mm		
Individual packing	Color Box		

Features:
- 3 1/2 digits 1999 counts.
- 0.8% best accuracy.
- RJ-45/RJ-11 cable test for open circuits , shorts, miswires, reversals and split pairs.
- Auto / Manual both rang.
- Extra function: back light, data hold, auto power off, low battery indication.

RJ-45 cable test

DMM

Cable tester

Line tester

RJ-45 / RJ-11 terminal

MT-1620 5 In 1 Autorange Digital Multimeter

5 in 1 for Humidity/Sound level/ Illuminance/ Temperature measurement and DMM functions

Specification			
DCV	400m/4/40/400V ±(0.7%+2d), 600V ±(1.0%+2d)		
ACV	4/40/400V ±(0.8%+3d), 600V ±(1.5%+5d)		
DCA	40m/400mA ±(1.2%+3d), 10A ±(2.0%+10d)		
ACA	40m/400mA ±(1.5%+5d), 10A ±(3.0%+10d)		
Resistance	400/4k/40k/400k/4MΩ ±(1.2%+2d), 40MΩ ±(2.0%+5d)		
Special Function	• Humidity: 30~90% ±5.0%RH • Sound level: 35~100dB ±3.5dB • Illuminance: 4,000/40,000Lux ±(5.0%+10d)		
Frequency	10Hz ±(2.0%+5d), 100/1,000/10kHz ±(1.5%+5d), 100k/200kHz ±(2.0%+5d)		
Capacitance	4n/40n/400n/4μ/40μF ±(3.0%+3d), 200μF ±(8.0%+10d)		
Temperature	-20~0°C ±(5.0%+5d), 0~400°C ±(1.0%+3d), 400~1000°C ±(2.0%+3d)		
Continuity with beeper	Y	Diode test	Y
Power source	NEDA1604/6F22 (9V) x 1pcs(Not included)		
Size	178 x 85 x 48 mm		
Individual packing	Color Box		

Features:
- 3-3/4 digits 3999 counts
- 0.7% best accuracy.
- Auto / Manuel both range
- Extra function: duty cycle, relative reference auto power off, back light, data hold and low battery indication

Humidity, sound level, illuminance sensor

Large LCD display

CAT III 600V
CAT II 1000V

MT-1630 3 1/2 Pen-Style Meter

Pen type compact in size DMM

Specification	
DCV	200m/2/20/200/600V ±(0.8%+5d)
ACV	2/20/200V ±(1.0%+3d), 600V ±(1.2%+3d)
DCA	20m/200mA ±(1.5%+10d)
ACA	20m/200mA ±(3.0%+10d)
Resistance	200Ω ±(1.0%+5d), 2k/20k/200k/2MΩ ±(1.0+3d), 20MΩ ±(1.2%+5d)
Continuity with beeper	Y
Diode test	Y
Over range indication	Y
Sampling rate	Approximately 3 times per sec.
Fuse protection	Y
Power source	LR44(1.5V)x2 pcs (not included)
Size	205 x 35 x 30 mm
Individual packing	Double blister

Features:
- 3 1/2 digits 1999 counts.
- 0.8% best accuracy.
- Auto range.
- Compact in size, light in weight and simple to use.
- Penlight brightly illuminates the point to be measured, even in dark places.
- Unique protection mechanism for the test probe for safety.
- Extra functions: auto power off, data hold, low battery indication.

MT-1217 3 3/4 Auto Range Digital Multimeter

CAT III 1000V

Test lead

transistor test socket, thermocouple probe

Features:
- Complies with newest CE safety standard
- 3 3/4 digits 3999 counts
- Large and easy to read display panel
- Overload and resettable fuse protection circuit design
- Extra function: Auto range, relative reference, backlight, data hold, auto power off, low battery indication

Specification			
DCV	400mV/4V/40V/400V ±(0.5%+4d), 1000V ±(1.0%+6d)		
ACV	4V/40V/400V ±(0.8%+6d), 750V ±(1.0%+10d)		
DCA	400μA/4000μA ±(1.0%+10d), 40mA/400mA ±(1.0%+10d), 4A/10A±(1.2%+10d)		
ACA	400μA/4000μA ±(1.5%+10d), 40mA/400mA ±(1.5%+10d), 4A±(2.0%+15d) ; 10 A±(2.5%+15d)		
Resistance	400Ω ±(0.8%+5d), 4k/40k/400KΩ/4MΩ± (0.8%+4d), 40MΩ ±(1.2%+10d)		
Frequency	400/4K/20KHz ±(0.5%+10d)		
Capacitance	40nF ±(0.5%+30d), 400nF/4μF/20μF ±(3.5%+8d)		
Temperature	(-20˚C~1000˚C) < 400˚C±(1.0%+5d) (-20˚C~1000˚C) >= 400˚C±(1.5%+15d)		
Duty Cycle	0.1%~99.9%		
Continuity with beeper	Y	Diode Test	Y
Transistor hFE test	Y (with socket)		
Fuse	0.4A/250V Resettable fuse, 10A/250V Fuse		
Power source	9V*1(not included)		
Size (HXWXD)mm	182×90×46mm	Test leads model no.	MT-9906
Individual packing	Color Box		

MT-1270 3-1/2 Digital Multimeter

CAT III 1000V

Test lead

transistor test socket, thermocouple probe

Frequency/Capacitance/Temperature/DMM All in 1.

Features:
- 3 1/2 digits 1999 counts.
- 0.5% best accuracy.
- Extra functions: data hold, auto power off, low battery indication, LCD backlight.

Specification			
DCV	200mV/2V/20V/200V ±(0.5%+3d)1000V ±(0.8%+10d)		
ACV	2V/20V/200V ±(0.8%+5d)750V ±(1.2%+10d)		
DCA	2mA/20mA ±(0.8%+10d), 200mA ±(1.2%+8d), 10A ±(2.0%+5d)		
ACA	20mA ±(1.0%+15d), 200mA ±(2.0%+5d), 10A ±(3.0%+10d)		
Resistance	200Ω ±(0.8%+5d), 2K/20K/200K/2MΩ ±(0.8%+3d) 20MΩ ±(1.0%+25d), 200MΩ ±[5.0%(rdg-10)+30d]		
Frequency	20K Hz ±(3.0%+18d)		
Capacitance	2nF ±(2.5%+20d), 20nF ±(2.5%+20d), 200nF ±(2.5%+20d), 2μF ±(2.5%+20d), 20μF ±(5.0%+30d)		
Temperature	(-20˚C~400˚C)±1.0%+5d, (400~1000˚C)±(1.5%+15d)		
Continuity with beeper	Y	Diode test	Y
Transistor test	Y		
Battery	9V(6F22) (Not Included)		
Size (HXWXD)mm	182x90x46		
Test Lead model no.	MT-9906		
Individual packing	Color Box		

MT-1280 3-1/2 Digital Multimeter

CAT III 1000V

Test lead

transistor test socket, thermocouple probe

Capacitance / Temperature

Features:
- 3 1/2 digits 1999 counts.
- 0.5% best accuracy.
- Extra functions: Auto power off, low battery indication LCD backlight, data hold, LED indicator.

Specification			
DCV	200mV/2V/20V/200V ±(0.5%+3d), 1000V ±(0.8%+10d)		
ACV	2V/20V/200V ±(0.8%+5d), 750V ±(1.2%+10d)		
DCA	200μA/20mA ±(0.8%+10d), 200mA ±(1.2%+8d), 20A ±(2.0%+5d)		
ACA	20mA ±(1.0%+5d), 200mA ±(2.0%+5d), 20A ±(3.0%+10d)		
Resistance	200Ω ±(0.8%+5d), 2K/20K/200KΩ ±(0.8%+3d), 20MΩ ±(1.0%+25d), 200MΩ ±[5.0%(rdg-10)+10d]		
Capacitance	20nF ±(2.5%+20d), 20uF ±(2.5%+20d), 200μF ±(5.0%+20d)		
Temperature	-20°C~400°C±(1.0%+5d), 400°C~1000°C±(1.5%+15d)		
Continuity with beeper	Y	Diode test	Y
Transistor test	Y		
Battery	9V(6F22) (Not Included)		
Size	182×90×46mm		
Individual packing	Color Box		

MT-1232 3-3/4 Autorange Digital Multimeter

Auto range, Frequency/Capacitance/Temperature/DMM All in 1.

Features:
- 3 3/4 digits 3999 counts.
- 0.5% best accuracy.
- Auto/Manual both range.
- Extra functions: relative reference, data hold, auto power off, low battery indication, LCD backlight.

CAT III 600V

Specification			
DCV	400mV/4V/40V/400V ±(0.5%+4d), 600V ±(1.0%+4d)		
ACV	4V/40V/400V ±(0.8%+6d), 600V ±(1.0%+6d)		
DCA	400μA/4000μA ±(1.0%+10d), 40mA/400mA ±(1.0%+10d), 10A ±(1.2%+10d)		
ACA	400μA/4000μA ±(1.5%+10d), 40mA/400mA ±(1.5%+10d), 10A ±(2.5%+15d)		
Resistance	400Ω ±(0.8%+5d) 4k/40k/400K ±(0.8%+4d), 4MΩ ±(0.8%+4d) 40MΩ (1.2%+10d)		
Frequency	1/10/100Hz ±(0.5%+10d), 1K/10K/100KHz ±(0.5%+10d), 1/10MHz ±(0.5%+10d)		
Capacitance	4nF ±(0.5%+9d), 40nF/400nF/4μF/40μF ±(3.5%+8d), 100μF ±(5.0%+8d)		
Temperature	(-20C~1000C) < 400C±(1.0+5d), (-20C~1000C) >= 400C±(1.5+15d)		
Duty Cycle	0.1% ~ 99.9% For reference		
Continuity with beeper	Y	Diode test	Y
Fuse	10A/250V	Power source	1.5V AA x 2 (not included)
Size	147 x 78 x 41 mm		
Test leads model no.	MT-9907		

Individual packing: Color box

Test lead

transistor test socket, thermocouple probe

MT-1233C 3 1/2 Digital Multimeter

LCD backlight, Data hold, °C and °K temperature test, Palm Size.

Features:
- Complies with the newest CE safety standard
- 3 1/2 digits 1999 counts
- Palm size for easy storage and carrying
- Extra functions: backlight, data hold, low battery indication, overload protection indication
- User friendly interface is ideal for students, DIY market. home applications and more

CAT II 300V

Specification			
DCV	200m/2000m/20/200V ±(0.8%+3d), 500V ±(1.0%+3d)		
ACV	200/500V ±(1.2%+5d)		
DCA	2000u/20m/200mA ±(1.2%+5d), 10A ±(2.5%+5d)		
Resistance	200Ω ±(1.5%+5d) , 2000/20k/200kΩ ±(1.0%+3d) , 20MΩ ±(1.0%+3d)		
Temperature	-40~150°C ±(1.0%+3d), 150-1000°C ±(1.5%+15d) -40~302°F ±(1.0%+4d), 302-1832°F ±(1.5%+15d)		
Continuity with beeper	Y	Diode test	Y
Power source	1.5V AAA x 2 (not included)		
EN61010-1	CE/CAT I 600V, CATII 300V		
Size	130 x 72 x 28mm		

Individual packing: Double blister

Accessories:
Test leads,thermocouple probe

MT-1233D 3 1/2 Digital Multimeter

LCD backlight, Data hold, Hight resistance test, Square signal output, Palm Size.

Features:
- Complies with the newest CE safety standard
- 3 1/2 digits 1999 counts
- Palm size for easy storage and carrying
- Extra functions: backlight, data hold, low battery indication, overload protection indication
- User friendly interface is ideal for students, DIY market. home applications and more

CAT II 300V

Specification			
DCV	200m/2000m/20/200V ±(0.8%+3d), 500V ±(1.0%+3d)		
ACV	200/500V ±(1.2%+5d)		
DCA	2000u/20m/200mA ±(1.2%+5d), 10A ±(2.5%+5d)		
Resistance	200Ω ±(1.5%+5d), 2000/20k/200kΩ ±(1.0%+3d) 20MΩ ±(1.0%+5d), 200MΩ ±(1.0%(rdg-l0)+10d)		
Square signal output	50Hz (5 Vp-p, 50KΩ)		
Continuity with beeper	Y	Diode Test	Y
Power source	1.5V AAA x 2 (not included)		
EN61010-1	CE/CAT I 600V, CATII 300V		
Size	130 x 72 x 28mm		

Individual packing: Double blister

Accessories:
Test leads

MT-1250 Professional 3-1/2 Digital Multimeter

CAT III 600V
CAT II 1000V

Features:
- 3 1/2 digits 1999 counts.
- 0.5% best accuracy.
- Extra function : backlight, data hold, auto power off, low battery Indication.

Transistor hFE test

Reliable-perfect overload with PTC, diode and two fuses.

Specification	
DCV	200mV ±(0.5%+1d), 2/20/200V ±(1.0%+2d), 1000V ±(1.5%+2d)
ACV	200mV ±(1.0%+3d), 2/20/200V ±(1.5%+3d), 750V ±(2.5%+4d)
DCA	200μ/2m/20m/200mA ±(1.2%+2d), 10A ±(2.0%+3d)
ACA	200μ/2m/20m/200mA ±(1.5%+3d), 10A ±(2.5%+5d)
Resistance	200Ω ±(1.2%+2d), 2k/20k/200k/2MΩ ±(1.0%+2d), 20M Ω ±(2.5%+4d)
Continuity with beeper	Y
Diode test	Y
Transistor hFE test	Y
LED test	Y
Power source	NEDA1604/6F22 (9V) x 1pcs(Not included)
Size	147x75x40 mm
Individual package	Double blister

MT-1132 3 1/2 Digital Multimeter

CAT III 600V

Features:
- Complies with the newest CE safety standard
- 3 1/2 digits 1999 counts
- Large and easy to read display panel
- Overload and mis-use protection
- Extra functions: backlight, data hold, low battery indication.
- User friendly interface is ideal for students, DIY market. home applications and more

transistor test socket

LED test

With backlight, data hold, economic type.

Specification	
DCV	200mV/2V/20V/200V ±(0.5%+2d) 500V ±(0.8%+5d)
ACV	200V ±(1.2%+10d), 500V ±(1.2%+10d)
DCA	200μA/2mA/20mA/200mA ±(1.0%+5d) 10A ±(2.5%+5d)
Resistance	200Ω ±(0.8%+5d) 2K/20K/200K ±(0.8%+5d) 2MΩ ±(1.0%+5d)
Continuity with beeper	Y
Diode test	Y
Transistor hFE test	Y
LED test	Y
Battery check	Y (1.5V)
Fuse	10A/250V
Power source	1.5V AA x 2 (not included)
Size	147 x 78 x 41 mm
Test leads model no.	MT-9907

Individual packing: Color box

MT-1210 3-1/2 Compact Digital Multimeter

Features:
- 3 1/2 digits 1999 counts.
- 0.5% best accuracy.
- Extra functions: backlight, data hold, low battery indication.

Transistor hFE test

Back light

With backlight, data hold, economic type.

Specification	
DCV	200m/2/20/200V ±(1.0%+2d), 500V ±(1.2%+5d)
ACV	200/500V ±(2.5%+10d)
DCA	200μ/2m/20m/200mA ±(2.0%+5d), 10A ±(3.0%+5d)
Resistance	200Ω/2k/20k/200kΩ ±(1.0%+5d), 2MΩ ±(1.5%+5d)
Continuity with beeper	Y
Diode test	Y
Transistor hFE test	Y
Power source	NEDA1604/6F22 (9V) x 1pcs(Not included)
Size	144×70×32 mm
Individual package	Double blister

Smart Meter Series

Pro'sKit® Smart Meters feature high performance and automatic function selection. When it be connected with measured object, the smart meter will automatically determining the type of object under test and selecting measuring function, only one touch, the measuring value display on large LCD for easy reading and analysis.
Smart meters auto selection function is not only provide user simple and quick measuring, also can prevent damage under incorrect operation. Beside, Pro'sKit Smart Meters also got the 600V overvoltage protection function for safety.

MT-1505 Automatic Pocket Meter

Auto-selection function, Non-contact ACV detector

Features:
- 3-3/4 digits 3999 counts.
- 0.7% best accuracy.
- Auto range.
- Auto-selection ACV, DCV, Resistance.
- Non-contact voltage detector of ACV.
- Extra functions: auto power off,low battery indication.
- Safety extras such as transient protection to 4 kV and overload protection to either 600 V.

Specification	
DCV	4/40/400V ±(0.7%+4d), 600V ±(0.8%+5d)
ACV	4/40/400V ±(0.8%+4d), 600V ±(1.2%+4d)
Resistance	400Ω/4k/40k/400k/4MΩ ±(0.8%+2d), 40MΩ ±(2.0%+5d)
Frequency	40Hz ±(1.0%+5d), 400/4k/40k/400k/4MHz ±(0.5%+5d), 10MHz ±(1.5%+5d)
Capacitance	40n/400n/4μ/40μ/200μF ±(4.5%+6d)
EF Detection	15V~55V "–" 30V~85V "– –" 55V~145V "– – –" Above 120V "– – – –"
Continuity with beeper	<100Ω
Diode test	Range: 0.1-2V Resolution: 1mV
Power source	IEC-CR2032 (3V)standard button battery x 1 pcs (Not included)
Size	115×57×12 mm
Individual packing	Color box

Non-contact detect volts

Resistance Measurement

DCV Measurement

MT-3105 Smart Clamp Meter

Auto-selection function, Non-contact ACV detector.

Features:
- 3 3/4 digits 3999 counts.
- 0.7% best accuracy.
- Auto range.
- Auto selection DCV, ACV, ACA, Resistance.
- Non-contact voltage detector of ACV.
- 10 sets data store & read.
- Extra function: backlight, data hold, auto power off, low battery indication.
- Jaw Opening Size: max.42mm.

Specification	
DCV	4/40/400V ±(0.7%+4d), 600V ±(0.8%+5d)
ACV	4/40/400V ±(0.8%+4d), 600V ±(1.2%+4d)
ACA	40/400A ±(1.8%+5d)
Resistance	400Ω(0.8%+6d),4kΩ/40kΩ/400kΩ/4MΩ ±(0.8%+2d), 40MΩ ±(2.0%+5d)
EF Detection(NCV)	15V~55V "–" 30V~85V "– –" 55V~145V "– – –" Above 120V "– – – –"
Continuity with beeper	Y
Power Source	AA(1.5V)x2pcs (not included)
Size	220×76.5×48.5 mm
Individual package	Color box

ACA Measurement

Non-contact voltage detection

MT-3109 AC/DC Digital Clamp Multimeter

AC / DC Measurement

AC/DC current, Frequency, Capacitance measurement.

CAT II 600V

Features:
- 3 3/4 digits 3999 counts
- 1.0% best accuracy.
- Auto range.
- Overload protection.
- Extra function: duty cycle, relative reference, data hold, sleep mode, auto power off, low battery indication.
- Jaw Opening Size: max. 30mm

ACA measurement

DCA measurement

Specification	
DCV	400m/4V ±(1.0%+3d), 40/400V ±(1.0%+1d), 600V ±(1.0%+5d)
ACV	4/40/400V ±(1.2%+5d), 600V ±(1.5%+5d)
DCA	40A ±(2.5%+5d), 400A ±(2.5%+3d)
ACA	40A ±(3.0%+8d), 400A ±(3.0%+5d)
Resistance	400Ω ±(1.2%+5d), 4k/40k/400kΩ ±(1.0%+5d), 4MΩ ±(1.2%+5d), 40MΩ ±(1.5%+5d)
Frequency	10/100/1k/10k/100k/1MHz ±(0.1%+5d), 10MHz (For reference only)
Capacitance	40n/400n/4μ/40μF ±(5.0%+10d), 100μF ±(6.0%+10d)
Diode test	Y
Continuity with Buzzer	Y
Power Source	AAA(1.5V) x 3 pcs (Not included)
Size	203 x 68 x 33 mm
Individual Packing	Double Blister

MT-3102 3 1/2 2A Mini Digital Clamp Meter

AC current 24. Temperature measurement.

CAT II 600V

Features:
- 3 1/2 digits 1999 counts.
- 0.8% best accuracy.
- Auto range.
- Portable and simple one-hand operation.
- Extra function: Maximum value hold, data hold, auto power off, low battery indication.
- Max. jaw opening: max. 30mm.

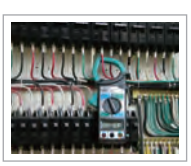
ACA measurement

Specification	
DCV	200mV ±(0.8%+5d), 2/20/200V ±(0.8%+3d), 600V ±(1.0%+5d)
ACV	2/20/200V ±(1.2%+5d), 600V ±(1.5%+5d)
ACA	2A ±(3.0%+15d) ≤ 0.4A ±(4.0%+20d), 20A ±(2.0%+10d) ≤ 0.4A ±(3.0%+15d), 200/400A ± (2.0%+5d)
Resistance	200Ω ±(1.2%+5d), 2k/20k/200kΩ ±(1.0%+3d), 2MΩ ±(1.2%+5d), 20MΩ ±(1.5%+5d)
Temperature ˚C/ ˚F	-40~0˚C ±(3.0%+4d), 0~400˚C ±(1.0%+3d), 400~1000˚C ±(2.0%+10d)
	-40~32˚F ±(3.0%+8d), 32~752˚F ±(1.0%+6d), 752~1832˚F ±(2.0%+18d)
Diode test	Y
Continuity with beeper	Y
Power source	AAA(1.5V) x 3 pcs (Not included)
Size	203 x 68 x 33 mm
Individual packing	Double blister

MT-3266 3 1/2 Hand Held Digital Clamp Meter

CAT II DC 1000V AC 750V

Features:
- 3 1/2 digits 1999 counts.
- 0.8% best accuracy.
- Portable and simple one-hand operation.
- Extra function: data hold, low battery indication.
- Max. jaw opening: max. 50mm.



ACA measurement

Specification	
DCV	1,000V ±(0.8%+2d)
ACV	750V ±(1.2%+4d)
ACA	200/1,000A ±(3.0%+5d)
Resistance	200Ω ±(1.0%+3d), 20kΩ ±(1.0%+1d)
Continuity with beeper	Y
Power Source	NEDA1604/6F22 (9V) x 1pcs(Not included)
Size	230 x 70 x 37 mm
Individual package	Double blister

MT-2017 Protective Function Analog Multimeter

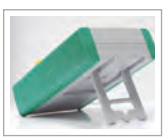
CAT II 1000V
CAT III 500V

With Null DCV, Capacitance measurement

Specification	
DCV	0.1/2.5/10/50/250V ±3.0%FSD, 1000V ±4.0%FSD
Null DCV	DC ±5V/±25V ±5.0%FSD
ACV	10/50/250V ±4.0%FSD, 1000V±5.0%FSD
DCA	50μ//2.5m/25m/250mA ±3.0%FSD, 10A ±4.0%FSD
Resistance	×1(0.2~2kΩ)/ ×10(2~20kΩ)/ ×100(20~200kΩ)/ ×1k(200~2MΩ)/ ×10kΩ(2k~20MΩ) ±4.0%ARC
Capacitance	C1(R×1k): 2000μF(Approx.), C2(×50μA): 0.025μ/0.25μ/25μ ±3.0%FSD(Option MT-2007-C)
Battery check	1.5V/9V
Transistor hFE test	Y
Diode & LED test	Y
Continuity with beeper	Y
Front Panel Controls	Range selector switch with "OFF" position, 0Ω adjust knob
Power source	AA(1.5V) x 2pcs and NEDA1604/6F22 (9V) x 1pcs
Size	160 x 105 x 40 mm
Individual packing	Color box

Features:
- Double-sided glass epoxy PCB.
- Mirrored Aluminum dial plate.
- Overload and mis-used protection via two fuses, oxide varactor & diodes.
- Robust protective holster alongside.
- 20kΩ/V DC & 9 kΩ/V AC input sensitivity.
- Adjustable back tilt device with hook-up design.
- Ideal for using in the fields of lab, school, home applications and more.

Double-sided glass epoxy PCB


Adjustable back tilt devicce with hook-up

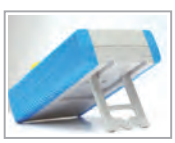
NULL DCV measurement

MT-2018 Protective Function Analog Multimeter

With capacitance measurement

Specification	
DCV	0.1/0.5/2.5/10/50/250V ±3.0%FSD, 1000V ±4.0%FSD
ACV	10/50/250V ±4.0%FSD, 1000V±5.0%FSD
DCmA	50μ/2.5m/25m/250mA ±3.0%FSD
Resistance	×1(0.2~2kΩ)/ ×10(2~20kΩ)/ ×100(20~200kΩ)/ ×1k(200~2MΩ)/ ×10kΩ(2k~20MΩ) ±4.0%ARC
Capacitance	C1(R×1k): 2000μF(Approx.), C2(×50μA):0.025μ/0.25μ/25μ ±3.0%FSD(Option MT-2007-C)
Battery Check	1.5V/9V
Transistor hFE test	Y
Diode & LED test	Y
Front Panel Controls	Range selector switch with "OFF" position, 0Ω adjust knob
Power Source	1.5V AA x 2pcs and 9V(NEDA1604) x 1pcs
Size	160 x 105 x 40 mm
Individual Packing	Color box

Features:
- Mirrored Aluminum dial plate.
- Overload and mis-used protection via two fuses, oxide varactor & diodes.
- Robust protective holster alongside.
- 20kΩ/V DC & 9 kΩ/V AC input sensitivity.
- Adjustable back tilt device with hook-up design.
- Ideal for using in the fields of lab, school, home applications and more.


Adjustable back tilt device with hook-up

CAT II 1000V
CAT III 500V

Including test leads, batteries & fuses

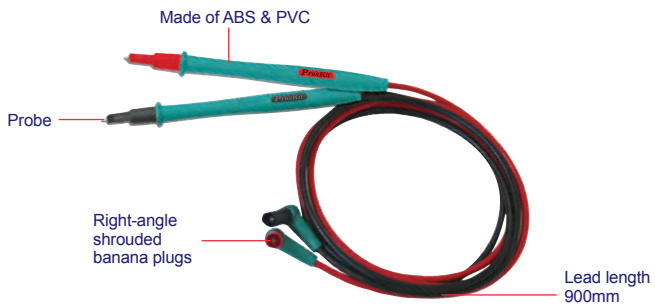
MT-9906 / MT-9907 Test Lead

MT-9906	
Probe	Ø2x17mm
Hand piece	129mm
Lead length	900mm
Plug	Ø4.2x15mm
OAL	1045mm
Weight	78.5g

MT-9907	
Probe	Ø2x17mm
Hand piece	109mm
Lead length	900mm
Plug	Ø4.2x15mm
OAL	1025mm
Weight	74g

CAT III 1000V

Features:
- One pair (one red, one black) comfort grip probes with protective cap for user comfort and safety
- Durable quality PVC insulated test leads with right-angle shrouded banana plugs
- Banana plugs are molded directly to the wire for superior pull strength
- Needle tip test probe, allowing easy access of hard to reach test points
- Compatible with most multimeters that accept safety style sheath banana plugs



MT-4014 Temperature/Humidity/Dew Point Meter

Cover and wrist strap included

Box

Features:
- 4 digits LCD display
- It comes out degree & RH at the time degree.
- Extra functions: backlight, data hold, auto power off, low battery indication, Average/ Max/Min mode.
- Widely use in workshops, offices, plants, library, computer center, laboratories and more.

Specification	
Measure	°C, °F, %RH(relative humidity), td (dew point temperature)
Range	-10~50°C, 14~122°F, 0~100%RH
Accuracy	±1.0°C, ±1.8°F, ±3%RH (5~95%RH)
Sample rate	1 time/sec.
Resolution	0.1˚C, 0.1˚F ; 0.1%RH
Power source	AAA(1.5V) x 3pcs (Not Included)
Size	130 x 60 x 30 mm
Individual Packing	Carrying Case + Color Box

MT-4015 Thermometer and Vane Anemometer

Cover and wrist strap included

Box

Features:
- Top display, show the Velocity, 4 digits LCD display. Bottom display, show the temperature,3 1/2 digits LCD display.
- Extra functions: data hold, auto power off, low battery indication, Max/Min mode.
- Suitable for engineers' environments monitoring, ventilation surveillance and more.

Specification	
Measure	°C, °F, m/s, km/h, fpm, mph, kts, Beaufort scale,
Range	Velocity：0.4~20 m/s, 80~4000 fpm. Temperature：-10~50°C, 14~122°F
Accuracy	±(2%+0.5m/s), ±(2%+100fpm), ±1°C, ±1.8˚F
Sample rate	2 time/sec.
Resolution	0.1 m/s, 1 fpm, 0.1˚C, 0.1˚F.
Power source	AAA(1.5V) x 3pcs (Not Included)
Size	157 x 60 x 30 mm
Individual packing	Carrying Case + Color Box

MT-4017 Light Intensity Meter

Cover and wrist strap included

Box

Features:
- 6 digits LCD display.
- Portability and simplicity one-hand operation
- Extra functions: data hold, auto power off, low battery indication, Max/Min mode.
- Ideal for light measuring in office, library, hospital or home use and more.

Specification			
Parameters	Lux(lm/m²); foot candle (lm/ft²)		
Range	0~90000 Lux; 0~8300.0 ftc		
Accuracy	Range	Accuracy	Environment
	0~10000lux	±(4%+50 digits)	23˚C @2856K color temperature
	10000~90000lux	Reference	
Sample rate	1 time/sec		
Resolution	1 Lux(0~90000 Lux), 0.1 ftc(0~8300.0 ftc)		
Power source	AAA(1.5V) x 3pcs (Not Included)		
Size	157 x 60 x 30 mm		
Individual packing	Carrying Case + Color Box		

MT-4018 Sound Level Meter

Features:
- 4 digits LCD display.
- Dual display with analog bargraph.
- Auto / Manual range.
- Extra functions: auto power off, low battery indication, Sound OVER or UNDER display
- Usually apply to traffic, factory, office for sound level monitoring

Specification	
Microphone	Electret condenser microphone
Response frequency	31.5Hz~8KHz
Frequency weighting	A Type
Range	30~60dB, 50~80dB, 70~100dB, 90~120dB
Resolution	0.1 dB
Accuracy	30~60dB ±3 dB; 60~120dB ±2 dB
Time response	Analog bar: 125ms ; Digital :750ms
Power source	AAA(1.5V) x 3pcs (Not Included)
Size	175 x 60 x 32 mm
Individual Packing	Carrying Case + Color Box

Cover and wrist strap included

Box

MT-4012 Infrared Thermometer

Features:
- Display: 4 digits LCD display. 2-temperature
- Portability and simplicity one-hand operation.
- Single point laser sighting.
- Extra functions: back light,Auto power pff 10sec., low battery indication, Max/Min/average mode.
- Perfect to measure the temperature of the object which couldn't be touch, such as electrical motors, diagnose car.
- Ideal for a wide variety of temperature monitoring, such as mechanical equipment or electrical motors, heater or oven temperature or monitoring materials in process of heating and cooling.

Specification	
Measurement Range	-20~537°C ; -4~999°F
Resolution	0.2°C
Accuracy	-20~50°C(-4~122°F) : ±2.5°C, 50~537°C(122~999°F) : ±(1%+1°C)
Temperature display	°C or °F selectable
Response time	1.5 seconds
Laser Power	< 1mW Class II laser product
Emissivity(ε)	Fixed at 0.95
Distance to spot ratio	12 : 1
Spectral Response	8-14μm
Power source	NEDA1604/6F22 (9V) x 1pcs(Not included)
Size	162x56x190 mm
Individual Packing	Zipper bag + Color Box

2 temperature display

Bag

Indication of spot size increases by distance

MT-4008 Sound Level Tester

Specification	
Microphone	1/4 inch electret condenser microphone
Response frequency	31.5Hz~8kHz
Frequency weighting	2 times per second
Range Lo/Med/Hi	32~80dB / 50~100dB / 80~130dB
Resolution	0.1 dB
Accuracy	1.5dB (Reference Range 94dB, 1KHz)
Time response	Fast : 125ms ; Slow : 1sec
Analog signal output	AC 1Vrms for each range
Power source	NEDA1604/6F22 (9V) x 1pcs(Not included)
Size	235 x 58.4 x 34 mm
Individual packing	Color Box

Features:
- 4-digit LCD display with analog bargraph.
- Fast and Slow detector-indicator characteristics.
- A & C frequency weighting selection.
- AC signal output.
- Over & under range indication.
- Extra function: Max/Min, lowbattery indication.
- Standard applied: IEC 651 Type 2 & ANIS S1.4 Type2.

MT-4011 K Type Digital Thermometer

Ideal For use in labs, industrial control and audits and measuring differential temperature T1/T2.

T1,T2 dual channel

Dual probe input

Features:

- Large LCD displays (LCD 18.2mm): 4 Digital liquid crystal display.
- Dual K type probe input.
- T1, T2 or T1-T2 dual channel display.
- 10 set data memory function.
- Function: ˚C/˚F selection, Max/Min reading, Data Hold, Relative reference, Memory, Limit, Hi/Lo, T1-T2 Type.
- Extra function: Auto power off, Low battery indication.

Specification	
Measurement range	K Type : -200~1372˚C (-328~2501˚F)
Accuracy	±(0.2%+1˚C): -250 ~ -100˚C ; ±(0.1%+0.7˚C):-100 ~ 1372˚C ; ±(0.2%+2˚F):-418 ~ -148˚F ±(0.1%+1.4˚F):-148 ~ 2501˚F
Resolution	0.1˚C/0.1˚F (below 1000˚C), 1˚C/1˚F (above 1000˚C)
Power source	AAA/UM-4(1.5V) X 4pcs (not included)
Size	125 X 82 X 43 mm
Accessories	K-type thermocouple wire x 2pcs
Individual packing	Sleeve with white box

NT-311 Digital Temperature Humidity Meter

For Home,warehouse, Internet server center and more

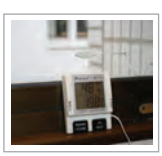
Features:

- Large LCD display, easy to read
- Integrating Temperature, Humidity, Clock, Alarm clock & Calendar Multi-functions.
- MAX. and MIN. temperature and humidity memory function
- 12-hour/24-hour displaying system selection.
- Wall hanging or desk-top stand support.

Specification	
Temperature range	-10 ~ +55°C / 14 ~ 130°F
Humidity range	10%RH~99%RH
Accuracy	0 ~ 50°C : ±1°C ; otherwise : ±2°C 32 ~ 112°F : ±1.8°F 40% ~ 80%RH : ±8%RH
Resolution	Temperature : 0.1°C (0.2°F) Humidity : 1%RH
Storage condition	-20~60°C (20%RH ~ 80%RH)
Power source	AAA(1.5V) x 1pcs (Not included)
Size	100 x 108 x 20 mm
Individual packing	Blister card

NT-312 Digital Temperature Humidity Meter With Probe

For Home & Office Use



For Indoor / Outdoor Measuring

Features:

- Economical way to monitor ambient temperature and humidity as well as outdoor temperature via remote temperature probe.
- Large LCD display, easy to read.
- MAX. and MIN. temperature and humidity memory automatic update functions.
- Wall hanging or desk-top stand support.

Specification	
Temperature range	-10 ~ +55°C / 14 ~ 130°F
Humidity range	20% RH ~ 99%RH
Accuracy	0 ~ 50°C : ±1°C, otherwise : ±2°C 40% ~ 80%RH : ±8%RH
Resolution	Temperature :0.1°C Humidity 1%
Probe wired length	2.9 Meters
Ambient temperature	-10 ~ +50°C / +14 ~ 122°F
Power source	AAA(1.5V) x 1pcs (Not included)
Size	75x60x23 mm
Individual packing	Blister card

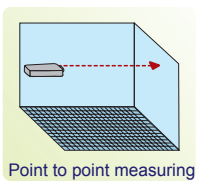
NT-6556 Ultrasonic distance Meter with Laser Tape

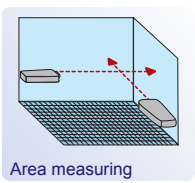
Save time, money & effort

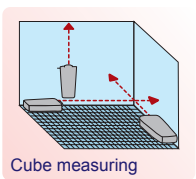
Features:

- Easily and quickly measure up to 50 feet.
- Calculation of area and volume.
- Measured data memory function.
- Multi-length accumulation.
- Auto converts feet to meters.
- Auto power off.

Specification:	
Recommended use	indoor
Measurement range	2~50 feet (0.6 ~ 15 meters)
Accuracy	±(0.5% +1digit)
Resolutions	1' (0.01m)
Aperture angle	Approx. ±5 degrees
Laser diode type	650nm
Power supply	9V alkaline battery×1 pcs(Not included)
Operating temperature	32~104˚F (0~40˚C)
Calculation range	Length: 9999 feet (9999m) Area: 999999 sq ft (99999m²) Volume: 999999 cu ft (99999m³)
Individual packing	Blister card


Point to point measuring


Area measuring


Cube measuring

NT-6352 3 in 1 Metal Voltage Stud Detector

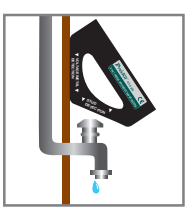
Fast, accurate, easy to use, LED & buzzer indicators

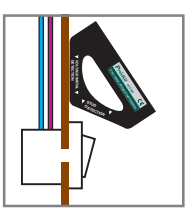
Features:

- Combined unit to accurately detect live or dead electricity cables, water or gas pipes and wooden studs or battens
- LED & buzzer indicators
- Depth penetration 18~20mm (0.7 to 0.8 inches)
- Uses precision screwdriver for easy unit sensitivity adjustment
- Power source: NEDA1604/6F22 (9V) x 1pcs(Not included)
- Size: 178 x 120 x 34.7mm (7 x 4.8 x 1.4 inches)

Individual packing: Color box

Wooden stud detection


Metal detection


Wiring detection

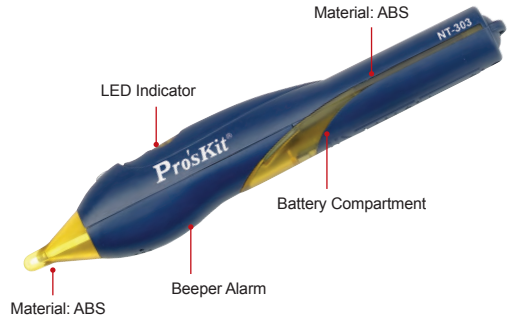
NT-6351 3 in 1 Auto-Detector

Features:

- Detects metal pipe, cable, or wood stud behind the aneling, plywood, and flooring up to 3/4 inch thick.
- Compact size, LED indicators for easy-to-use
- Power source: 12V x 1 (included)

Individual packing: Blister card

NT-303 Non-Contact Voltage Tester



Non-contact

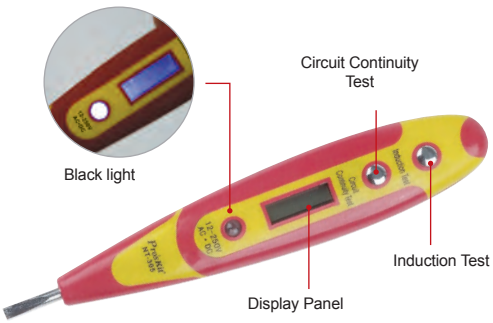
Screwdriver for battery replacement

Features:

- Contact - free electrical socket indication at AC voltages between 90V-240V
- Clear alarm system: flashing LED with beeper alarm
- Quick and accurate detection of circuit breaks
- Includes a small screwdriver for easy batteries replacement
- Pocket pen-type design, easy to carry and store

Individual packing: Blister card

NT-305 Voltage Tester



Pen size design

Easy operation

Auto-detecting function

Features:

- Blue LED inside, measurement can be identified clearly even in dark area
- Auto-detecting function for battery power examination
- Pen-sized, handy tester for quick and easy AC/DC voltage testing.
- AC Voltage Test: 70 to 250 VAC
- DC Voltage Test: Up to 12, 36, 55 VDC
- Great value for money
- Battery : CR927(3V) x 1pcs

Individual packing: Blister card

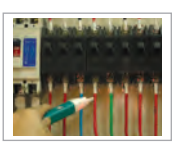
NT-306 Non-Contact Voltage Detector

CAT IV 1000V

Warning:
• Never test voltage more than 1000 VAC
• Test voltage range: 90V~1000 VAC

Red LED and audible alarm if voltage is present

Built-in white LED Illumination light


Detects AC voltage from 90 to 1000 VAC

Features:

- Built-in white LED illumination light provides convenient work in dark areas
- Compact size with pocket clip easily fits into pockets or tool pouches
- Red LED and audible alarm if voltage is present
- Entire outer surface is non-conductive for safety, helps avoid high voltage shock
- Powered by two 1.5V AAA batteries (not included)
- CAT IV 1000V Safety rating.
- Applications: Electricians, maintenance staffs, service and safety personnel, and even homeowners
- Detects AC voltage from 90 to 1000 VAC without metallic contact

Individual packing: Blister card

SD-328H Screwdriver Probe Voltage Tester

Tests AC/DC Voltage from 110-250V

Features:

- Easy and safe
- Tests AC/DC voltage from 110-250V
- Handy pocket screwdriver is a fully functional voltage tester
- Insulated screwdriver shaft
- Convenient screwdriver tip and pocket clip

Specifications:

- Power supply: Through the test sample
- Range of measurement: 110-250V AC
- Frequency: 50~500Hz
- Power consumption: <0.5mA
- Over-voltage class: Category III
- Display: Glow lamp
- Degree of contamination: 2

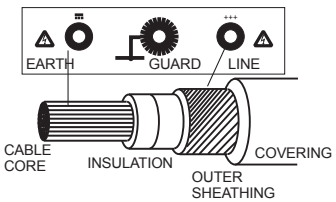
Individual packing: Blister card

8PK-4103IN Digital H.V. Insulation Tester

Features:
- 2 Lines x 16 Characters large LCD.
- Bar-graph indicates test voltage-rise and decay can be observed during tests.
- Auto Ranging.
- Smart microprocessor controlled.
- Four insulation test voltage: 500V DC(25GΩ), 1kV DC(50GΩ), 2.5kV DC(125 GΩ),5kV DC(250 GΩ).
- Warning and display of external voltage presence.
- Measure insulation time test.
- Very low battery consumption.
- Extra function: low battery indicator, auto power off, over load protection.

CAT II

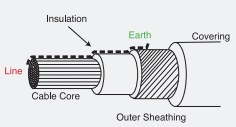
Connections:



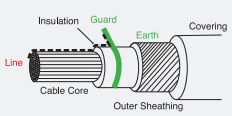
Specifications:
- Test Voltage(Measuring): 500V DC(25GΩ), 1kV DC(50GΩ), 2.5kV DC(125 GΩ), 5kV DC(250 GΩ)
- Accuracy: ±(5%+2d)
- Battery: AA(1.5V)x8 (Alkaline Battery) (Not included)

Individual packing: Color box

Without Guard Connection, Error Surface Leakage Current Circulate between Line and Earth Test Probes, creating a measurement error.
- The result will be much lower than real.



With Guard Connected, Surface Leakage Current is eliminated by the Guard Test Lead. Therefore Eliminating Measurement error.
- The result will be correct.



8PK-ST1520 Digital Earth Resistance Tester

Features:
- 3 1/2 digit 1999 counts.
- Capable of measuring earth voltage.
- 2mA measuring current permits earth resistance tests without tripping earth leakage current breakers in the circuit under test.
- Extra function: data hold, auto power off, low battery, over range Indication.
- Safety standard: IEC-1010(EN61010), installation Category III.

Specifications:
- Measurement: Earth Resistance by constant current.
- System: Inverter. 820Hz, 2mA approx.
- Earth Voltage: 0~200V AC, 40~500Hz.
- Earth Resistance Range(Resolution): 0~20Ω(0.01Ω); 0~200Ω(0.4Ω), 0~2000Ω(1.0Ω).
- Accuracy: Earth voltage ±(1%+2d); Earth resistance ±(2%+2d) or ± 0.1Ω, which is greater.
- Battery: AA(1.5V)x6. (Not Included)
- Size: 163x100x50mm.

Individual packing: Color box

8PK-ST850 Phase Sequence Indicator

Features:
- Two functions in one unit incluidng open phase and phase sequence.
- Large size alligator clips : able to clip on switch-board terminals easily.
- Identify 3 phase sequence and open phase check.
- Ideal for installing conveyor lines, pump systems and interconnected drivers.
- No exposed metal parts. Safety features are incorporated throughout, including the pushbutton switch designed to minimize damage due to negligence.
- Safety approval: CE marks, IEN 1010 CAT. II.

Specifications:
- Voltage ranges: 90V~600V AC.
- Frequency Response: 50 / 60Hz.
- Size: 134×85×45 mm.
- Cord: 1.1 m each of Red(R), White(S) and Black(T) cord.

Individual packing: Color box

NT-1933/NT-1934 Receptacle Testers

NT-1933

NT-1934

Features:
- Tests for correct wiring, open ground, reverse polarity, open hot, open neutral, hot on neutral, hot and ground reversed with open hot and ground fault interruption in 3-wire, 120VAC circuits
- Model NT-1934 features proper operation GFI receptacles testing.

Individual packing: Blister card

Light pattern indicates condition of wiring. ● Red is on ● Amber is on ○ Light is off

OPEN GROUND ○●● Ground contact not connected	OPEN NEUTRAL ○○● Neutral contact not connected	OPEN HOT ○○○ Hot contact not connected	
HOT/GRD REVERSE ●○● Hot and ground contacts interchanged	OPEN NEUTRAL ●●○ Hot and neutral contacts interchanged	CORRECT ○●● Receptacle is wired correctly	

6HP-9060 Series Oscilloscope Probe Kit

6HP-9XXXR Series
(Standard type)

6HP-9XXXR Series
(With readout functions)

Features:
- Switchable X1/X10/X100 attenuation with reference switch positions.
- Break-resistant center conductor & wide compensation range.
- Flatter response, sharper leading edges.
- Faster rise time and replaceable cable probe head tip and ground lead.
- Max. input voltage: 600V/1200V (DC-peak AC).
- Includes BNC adapter, IC tip, insulating tip & trimming tool.

Individual packing: Pouch bag

Switchable series							
Model No.	Attn.	Readout	Input impedance	Band width	Resetime	Max input V	Compensation range
6HP-9060	x1	No	1MΩ 90PF	6MHz	58ns	600VDC	NA
	x10		10MΩ 18PF	60MHz	5.8ns		10-35PF
6HP-9100	x1		1MΩ 47PF	6MHz	58ns	600VDC	NA
	x10		10MΩ 16PF	100MHz	3.5ns		10-35PF
6HP-9150	x1		1MΩ 47PF	6MHz	58ns	600VDC	NA
	x10		10MΩ 15PF	150MHz	2.3ns		10-35PF
6HP-9250	x1		1MΩ 47PF	6MHz	58ns	600VDC	NA
	x10		10MΩ 14PF	250MHz	1.4ns		10-35PF
6HP-9258	x100		100MΩ 15PF	250MHz	1.4ns	1200VDC	10-35PF

Readout series							
Model No.	Attn.	Readout	Input impedance	Band width	Resetime	Max input V	Compensation range
6HP-9101R	x10	Yes	10MΩ 16PF	100MHz	3.5ns	600VDC	10-35PF